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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,407	11/02/2001	Victor C. Wong	82852NAB	9091

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EXAMINER

GODDARD, BRIAN D

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,407

Applicant(s)

WONG ET AL.

Examiner

Brian Goddard

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-111 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-111 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/02/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings filed 24 January 2002 are objected to because Figures 3 and 8b are missing. The Office received only 8 sheets of Drawings with this submission, not the 10 sheets as indicated on the cover page.
2. Further, Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Duplicate Claims - Warning

3. Applicant is advised that should claims 25 and 26 be found allowable, claims 38 and 39 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-49 and 60-107 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "long-term preservation" in claim 1 is a relative term which renders the claim indefinite. The term "long-term" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 2-49 each depend from claim 1, and are therefore indefinite for the same reason.

Claims 60-107 also recite "long-term preservation", and are therefore indefinite for the same reason.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-5, 8-12, 14, 17-20, 23-39, 41, 44, 47-58, 60-74, 77-78, 80-93, 96-97, 99 and 101-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,691,309 to Lorie in view of U.S. Patent Application Publication No. 2001/0056429 to Moore et al.

Referring to claim 1, Lorie discloses a system for long-term preservation of a data record substantially as claimed. See Figures 1-10 and the corresponding portions

of Lorie's specification for this disclosure. In particular, Lorie teaches a system for long-term preservation of a data record [See Figs. 2-6], the system comprising:

(a) an input handler [See Fig. 2 & Left half of Fig. 6] for accepting a preservation request to preserve said data record ['object'], for accepting input metadata [See Fig. 6] associated with said data record to form a metadata record ['O2' (See Fig. 6)], and for conversion of said data record and said metadata record to generate a formatted data record ['encapsulated object' (See Fig. 6)];

(b) a data processor [See Column 12, line 20 et seq.] for accepting said formatted data record and for encoding, from said formatted data record, a print file ['save data bit stream'];

(c) a preservation medium ['removable medium' for recording said print file for long-term preservation [See Abstract & Summary];

(d) a writer [See Column 12, line 20 et seq.] for marking said print file onto said preservation medium to form a human-readable preserved data record [See Abstract & Summary].

Lorie is not explicitly concerned with the storage of the preservation medium after writing, and therefore is silent on the claimed indexing database and storage apparatus for storing an index entry and safekeeping the human-readable data record. However, Lorie does recognize the necessity to catalog (index) and safely store the written data record for future retrieval, as shown in the Background of the Invention section in Column 2, lines 20-32. This provides explicit suggestion for indexing (cataloguing) and storing the human-readable data after writing.

Moore discloses a system and method similar to that of Lorie, wherein the archived data record is stored in a storage apparatus ['long term storage' or 'archival storage'] for safekeeping, and an index entry is generated and stored in an indexing database ['meta-data catalog' (MCAT)] for future retrieval of the archived record. See Figures 19-25 & 47 and the corresponding portions of Moore's specification for the details of this disclosure.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate Moore's indexing and archival storage systems and methods into Lorie's system, to obtain the invention as claimed. One would have been motivated to do so because of Lorie's explicit suggestion, as discussed above, in order to fill Lorie's silence with an efficient archival storage system.

Referring to claim 2, Lorie v. Moore teaches the system of claim 1, as above, further comprising:

(g) a retrieval handler [Moore: retrieval mechanism] for accepting a retrieval request...and

(h) a data recovery apparatus for obtaining, from said human-readable preserved data record, said data record and said input metadata record [Moore: presentation mechanism; Lorie: UVC Interpreter].

Referring to claims 3 & 4, Lorie v. Moore teaches the system of claim 1, as above, wherein said human-readable preserved data record is encoded according to...XML [Lorie: See Column 8, lines 11-65; Moore: See Summary of the Invention and Figs. 3-15] as claimed.

Referring to claims 5, 8-12, 18 and 41 Lorie v. Moore teaches the system of claim 1, as above, wherein said data record encodes an image, audio, numerical data, motion image data, animation image data, image depth data, binary data, or machine-readable data [Lorie: See Fig. 2; Moore: See Figs. 31-33]...as claimed.

Referring to claims 14 and 17, Lorie v. Moore teaches the system of claim 1, as above, wherein said preservation medium comprises a metal plate [Moore: See Fig. 22], and said writer comprises a laser [Lorie: See Column 12, line 20 et seq.; Moore: See Fig. 22].

Referring to claims 19 and 20, Lorie v. Moore teaches the system of claim 1, as above, wherein said indexing database is a relational database or a hierarchical database [Moore: See Fig. 20] as claimed.

Referring to claim 23, Lorie v. Moore teaches the system of claim 2, as above, further comprising an operator interface for accepting said retrieval request [Lorie: See Column 12, line 20 et seq.; Moore: See 'browser'] as claimed.

Referring to claims 24-27, Lorie v. Moore teaches the system of claim 1, as above, wherein said data processor further supplements said metadata record within said formatted data record to add processing data...[Lorie: UVC program & Alphabet info (See Fig. 6)] as claimed.

Claims 28-29 are rejected on substantially the same basis as claims 2 & 24 above. See the discussions regarding claims 1-2 & 24 for the details of this disclosure.

Referring to claims 30-32, Lorie v. Moore teaches the system of claim 1, as above, further comprising...a browser...network...and processor...[Lorie: See Column 12, line 20 et seq.; Moore: See Summary & Detailed Description] as claimed.

Referring to claim 33, Lorie v. Moore teaches the system of claim 1, as above, wherein said metadata record comprises specifications about the metadata format [Lorie: See Fig. 6] as claimed.

Referring to claims 34 and 35, Lorie v. Moore teaches the system of claims 1-2, as above, wherein said input handler further provides preprocessing of said data record...[Lorie: See Left side of Fig. 6] and said data recover apparatus provides postprocessing...[Lorie: See Right side of Fig. 6] as claimed.

Claims 36-39 are rejected on substantially the same basis as claims 24-27 above. See the discussions regarding claims 24-27 for the details of this disclosure.

Referring to claim 44, Lorie v. Moore teaches the system of claim 5, as above, wherein said image comprises color-encoded data [Lorie: See Fig. 2; Moore: See Figs. 31-33] as claimed.

Claims 47 and 48 are rejected on substantially the same basis as claims 3-5 above. See the discussions regarding claims 1-5 for the details of this disclosure.

Claim 49 is rejected on substantially the same basis as claims 24-27 above. See the discussions regarding claims 24-27 for the details of this disclosure.

Claims 50-58 are rejected on substantially the same basis as claims 1, 19, 20, 17, 24-27 and 37 respectively. See the discussions regarding claims 1, 19, 20, 17, 24-27 and 37 above for the details of this disclosure.

Claims 60 and 61 are rejected on substantially the same basis as claim 1. See the discussion regarding claim 1 above for the details of this disclosure.

Claims 62-70, 74, 77-78, 80-93, 96-97, 99 and 101-107 are rejected on substantially the same basis as one or more of claims 2-5, 8-12, 14, 17-20, 23-39, 41, 44, 47-49, in light of the basis for claim 61 above. See the discussions regarding claims 1-5, 8-12, 14, 17-20, 23-39, 41, 44, 47-49 and 60-61 above for the details of this disclosure.

Referring to claims 71-73, Lorie v. Moore teaches the method of claim 69, as above. The light source of Lorie v. Moore does not explicitly comprise a LET, an OLED, or a lamp as claimed. However, the examiner takes Official Notice that these were common light sources used to write data onto a preservation medium, such as in Lorie v. Moore, at the time the invention was made. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add these light sources to the combination of Lorie v. Moore to obtain the invention as claimed, so as to provide a more comprehensive system with greater capabilities for writing information.

Claim 108 is rejected on substantially the same basis as claim 2. See the discussions regarding claims 1-2 above for the details of this disclosure.

Referring to claims 109-111, Lorie v. Moore teaches a method for expunging a human-readable preserved data record... [Lorie: See UVC; Moore: See all of detailed description]... as in claims 1-2 above.

7. Claims 6-7, 13, 15-16, 21-22, 40, 42-43, 45-46, 59, 75-76, 79, 94-95, 98 and 100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie in view of Moore as applied to claim 1 above, and further in view of U.S. Patent No. 6,442,296 to Smith et al.

Referring to claims 6-7, 13 and 15-16, Lorie & Moore are silent on details of the image encoding forms used. Thus, the combination does not explicitly teach that the image comprises a color separation or a grayscale form as claimed. Further, Lorie and Moore do not explicitly disclose photosensitive, thermal or electrophotographic preservation media.

Smith discloses an archival system and method similar to those of Lorie and Moore, wherein images are archived, and wherein said images comprise a color separation and a grayscale form as claimed. Further, Smith discloses usage of photosensitive, thermal and electrophotographic preservation media. See Figures 1-5 and the corresponding portions of Smith's specification for this disclosure.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate Smith's imaging capabilities and writer capabilities to write to photosensitive, thermal and electrophotographic preservation media, into the combined system of Lorie v. Moore to obtain the invention as claimed. One would have been motivated to do so in order to expand the capabilities of Lorie v. Moore, and to enhance visual characteristics of the archived data.

Referring to claims 21-22, Lorie v. Moore & Smith teaches the system of claim 2, as above, comprising a scanner...that performs OCR [Smith: See Abstract, Summary & Figs. 4-5] as claimed.

Claims 40, 42-43, 45-46, 59, 75-76, 79, 94-95, 98 and 100 are rejected on substantially the same basis as one or more of claims 6-7, 13, 15-16, 21-22 above. See the discussions regarding claims 6-7, 13, 15-16, 21-22 for the details of this disclosure.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

All prior art made of record is considered particularly pertinent to portions of applicants' claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goddard whose telephone number is 571-272-4020. The examiner can normally be reached on M-F, 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bdg
17 March 2005


SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
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